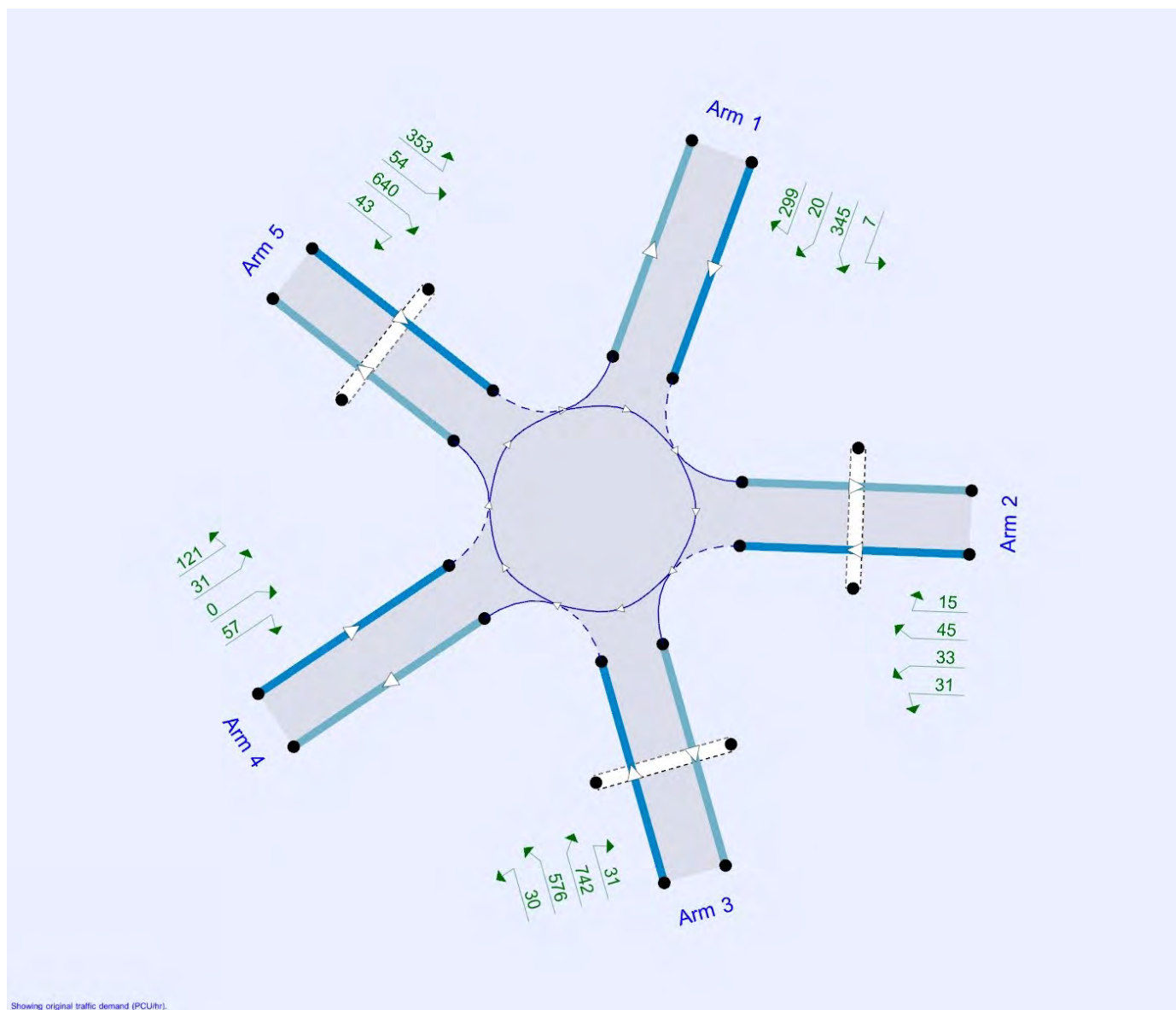




The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2021 + TVR	AM	ONE HOUR	07:45	09:15	15	✓
2021 + TVR	PM	ONE HOUR	16:45	18:15	15	✓
2021 + TVR + MRT	AM	ONE HOUR	07:45	09:15	15	✓
2021 + TVR + MRT	PM	ONE HOUR	16:45	18:15	15	✓

2021 + TVR, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	72.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	George Street	
2	Napier Road	
3	Vastern Road (South)	
4	Bagnall Wal	
5	Vastern Road (North-West)	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00
5	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	6.00	9.33	4.4	3.0	59.5	20.0	
2	3.50	7.20	30.0	23.0	59.5	27.0	
3	6.70	6.70	0.0	30.7	59.5	19.5	
4	8.00	9.57	1.5	20.0	59.5	29.0	
5	6.00	10.30	30.0	25.5	59.5	21.0	

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	Pelican	500.00
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
2	9.40	3.00	2.90	1.00	6.00	11.60	7.00
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.479	1601.786
2	0.598	1896.122
3	0.650	2138.666
4	0.708	2544.406
5	0.767	2824.479

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2021 + TVR	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	898.00	100.000
2		ONE HOUR	✓	72.00	100.000
3		ONE HOUR	✓	697.00	100.000
4		ONE HOUR	✓	7.00	100.000
5		ONE HOUR	✓	1686.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2	Global	500.00
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	19.000	549.000	50.000	280.000
	2	8.000	0.000	36.000	0.000	28.000
	3	387.000	63.000	0.000	140.000	107.000
	4	1.000	0.000	3.000	0.000	3.000
	5	376.000	76.000	1045.000	163.000	26.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.02	0.61	0.06	0.31
	2	0.11	0.00	0.50	0.00	0.39
	3	0.56	0.09	0.00	0.20	0.15
	4	0.14	0.00	0.43	0.00	0.43
	5	0.22	0.05	0.62	0.10	0.02

Vehicle Mix

Heavy Vehicle proportion

	To					
From		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

	To					
From		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.12	200.53	60.8	F	824.02	1236.03
2	0.19	11.55	0.3	B	66.07	99.10
3	0.60	7.53	1.6	A	639.58	959.37
4	0.00	2.13	0.0	A	6.42	9.63
5	0.96	35.02	17.0	E	1547.10	2320.65

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	676.06	169.02	1028.41		1109.39	0.609	669.37	577.42	0.0	1.7	8.872	A
2	54.21	13.55	1579.66	376.43	682.25	0.079	53.83	118.12	0.0	0.1	6.297	A
3	524.74	131.18	414.14	376.43	1287.62	0.408	521.74	1219.35	0.0	0.7	5.151	A
4	5.27	1.32	672.00		2068.77	0.003	5.26	263.88	0.0	0.0	1.918	A
5	1269.31	317.33	345.83	376.43	1855.05	0.684	1259.99	331.42	0.0	2.3	6.556	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	807.28	201.82	1234.00		1010.96	0.799	798.07	692.55	1.7	4.0	17.868	C
2	64.73	16.18	1890.50	449.49	548.46	0.118	64.52	141.58	0.1	0.1	8.179	A
3	626.59	156.65	495.03	449.49	1290.56	0.486	625.48	1459.99	0.7	1.0	5.944	A
4	6.29	1.57	804.27		1975.15	0.003	6.29	316.25	0.0	0.0	2.011	A
5	1515.68	378.92	414.59	449.49	2010.64	0.754	1511.96	395.97	2.3	3.3	7.876	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	988.72	247.18	1480.79		892.80	1.107	872.97	838.93	4.0	32.9	90.936	F
2	79.27	19.82	2184.42	550.51	426.91	0.186	78.87	169.34	0.1	0.2	11.369	B
3	767.41	191.85	563.42	550.51	1288.73	0.595	765.16	1699.87	1.0	1.6	7.529	A
4	7.71	1.93	951.05		1871.26	0.004	7.70	377.53	0.0	0.0	2.124	A
5	1856.32	464.08	507.17	550.51	1940.77	0.956	1812.54	451.58	3.3	14.2	25.096	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	988.72	247.18	1506.32		880.57	1.123	877.28	847.61	32.9	60.8	200.525	F
2	79.27	19.82	2212.48	550.51	422.02	0.188	79.25	171.12	0.2	0.3	11.553	B
3	767.41	191.85	568.85	550.51	1324.92	0.579	767.62	1722.88	1.6	1.5	7.109	A
4	7.71	1.93	955.06		1868.43	0.004	7.71	381.41	0.0	0.0	2.127	A
5	1856.32	464.08	508.81	550.51	1940.77	0.956	1845.12	453.96	14.2	17.0	35.023	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	807.28	201.82	1279.21		989.31	0.816	971.72	707.27	60.8	19.7	153.605	F
2	64.73	16.18	2102.79	449.49	471.38	0.137	65.02	148.15	0.3	0.2	9.753	A
3	626.59	156.65	565.57	449.49	1317.58	0.476	628.69	1602.24	1.5	1.0	5.767	A
4	6.29	1.57	862.12		1934.21	0.003	6.30	332.15	0.0	0.0	2.053	A
5	1515.68	378.92	416.72	449.49	2012.34	0.753	1569.76	451.69	17.0	3.5	9.987	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	676.06	169.02	1041.31		1103.22	0.613	747.53	583.41	19.7	1.8	13.465	B
2	54.21	13.55	1667.96	376.43	655.63	0.083	54.51	120.88	0.2	0.1	6.590	A
3	524.74	131.18	445.01	376.43	1343.05	0.391	525.93	1277.46	1.0	0.7	4.854	A
4	5.27	1.32	700.31		2048.73	0.003	5.27	270.63	0.0	0.0	1.939	A
5	1269.31	317.33	348.62	376.43	2061.63	0.616	1276.09	356.96	3.5	1.8	5.083	A

2021 + TVR, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	13.13	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	Pelican	500.00
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
2	9.40	3.00	2.90	1.00	6.00	11.60	7.00
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2021 + TVR	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	667.00	100.000
2		ONE HOUR	✓	92.00	100.000
3		ONE HOUR	✓	1378.00	100.000
4		ONE HOUR	✓	210.00	100.000
5		ONE HOUR	✓	1068.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2	Global	500.00
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	7.000	342.000	20.000	298.000
	2	16.000	0.000	31.000	0.000	45.000
	3	742.000	25.000	0.000	30.000	581.000
	4	32.000	0.000	57.000	0.000	121.000
	5	346.000	26.000	618.000	43.000	35.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.01	0.51	0.03	0.45
	2	0.17	0.00	0.34	0.00	0.49
	3	0.54	0.02	0.00	0.02	0.42
	4	0.15	0.00	0.27	0.00	0.58
	5	0.32	0.02	0.58	0.04	0.03

Vehicle Mix

Heavy Vehicle proportion

	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.62	8.93	1.8	A	612.05	918.08
2	0.15	6.81	0.2	A	84.42	126.63
3	0.89	20.40	8.2	C	1264.48	1896.72
4	0.19	4.14	0.3	A	192.70	289.05
5	0.73	8.69	2.8	A	980.02	1470.02

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	502.15	125.54	602.05		1313.53	0.382	499.45	847.99	0.0	0.7	4.849	A
2	69.26	17.32	1058.16	376.43	904.10	0.077	68.90	43.34	0.0	0.1	4.739	A
3	1037.43	259.36	342.21	376.43	1452.96	0.714	1026.83	784.85	0.0	2.7	9.082	A
4	158.10	39.52	1299.51		1624.63	0.097	157.63	69.53	0.0	0.1	2.699	A
5	804.05	201.01	650.32	376.43	1612.69	0.499	799.72	806.81	0.0	1.1	4.846	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	599.62	149.90	721.32		1256.42	0.477	598.35	1019.09	0.7	1.0	6.008	A
2	82.71	20.68	1267.64	449.49	807.09	0.102	82.57	52.03	0.1	0.1	5.466	A
3	1238.79	309.70	409.99	449.49	1633.29	0.758	1236.11	940.22	2.7	3.3	9.890	A
4	188.79	47.20	1562.67		1438.36	0.131	188.60	83.43	0.1	0.2	3.168	A
5	960.11	240.03	782.31	449.49	1616.45	0.594	958.10	968.96	1.1	1.6	5.997	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	734.38	183.60	881.51		1179.73	0.623	731.27	1239.90	1.0	1.8	8.769	A
2	101.29	25.32	1549.38	550.51	681.81	0.149	101.03	63.40	0.1	0.2	6.815	A
3	1517.21	379.30	501.15	550.51	1704.42	0.890	1500.16	1149.26	3.3	7.6	17.999	C
4	231.21	57.80	1899.58		1199.90	0.193	230.83	101.73	0.2	0.3	4.083	A
5	1175.89	293.97	950.40	550.51	1621.87	0.725	1171.01	1180.02	1.6	2.8	8.688	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	734.38	183.60	885.83		1177.66	0.624	734.27	1249.83	1.8	1.8	8.926	A
2	101.29	25.32	1556.26	550.51	683.10	0.148	101.29	63.84	0.2	0.2	6.805	A
3	1517.21	379.30	503.18	550.51	1703.61	0.891	1514.91	1154.37	7.6	8.2	20.397	C
4	231.21	57.80	1915.72		1188.48	0.195	231.20	102.38	0.3	0.3	4.136	A
5	1175.89	293.97	958.81	550.51	1691.74	0.695	1176.85	1188.11	2.8	2.6	7.711	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	599.62	149.90	726.34		1254.02	0.478	602.73	1034.65	1.8	1.0	6.110	A
2	82.71	20.68	1276.38	449.49	809.64	0.102	82.97	52.68	0.2	0.1	5.450	A
3	1238.79	309.70	412.82	449.49	1765.95	0.701	1260.79	946.53	8.2	2.7	8.162	A
4	188.79	47.20	1589.25		1419.55	0.133	189.17	84.36	0.3	0.2	3.221	A
5	960.11	240.03	796.36	449.49	1707.03	0.562	964.64	982.05	2.6	1.4	5.365	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	502.15	125.54	606.58		1311.36	0.383	503.48	857.12	1.0	0.7	4.911	A
2	69.26	17.32	1066.30	376.43	908.24	0.076	69.40	43.76	0.1	0.1	4.723	A
3	1037.43	259.36	344.91	376.43	1598.91	0.649	1039.76	790.79	2.7	2.1	7.115	A
4	158.10	39.52	1314.49		1614.02	0.098	158.30	70.18	0.2	0.1	2.722	A
5	804.05	201.01	657.89	376.43	1703.78	0.472	805.81	814.90	1.4	1.0	4.420	A

2021 + TVR + MRT, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	75.15	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	Pelican	500.00
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
2	9.40	3.00	2.90	1.00	6.00	11.60	7.00
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2021 + TVR + MRT	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	895.00	100.000
2		ONE HOUR	✓	105.00	100.000
3		ONE HOUR	✓	708.00	100.000
4		ONE HOUR	✓	7.00	100.000
5		ONE HOUR	✓	1695.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2	Global	500.00
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	19.000	551.000	46.000	279.000
	2	8.000	0.000	36.000	33.000	28.000
	3	392.000	69.000	0.000	140.000	107.000
	4	1.000	0.000	3.000	0.000	3.000
	5	374.000	103.000	1029.000	163.000	26.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.02	0.62	0.05	0.31
	2	0.08	0.00	0.34	0.31	0.27
	3	0.55	0.10	0.00	0.20	0.15
	4	0.14	0.00	0.43	0.00	0.43
	5	0.22	0.06	0.61	0.10	0.02

Vehicle Mix

Heavy Vehicle proportion

From	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

From	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.13	208.26	62.9	F	821.27	1231.90
2	0.26	11.89	0.4	B	96.35	144.52
3	0.61	7.75	1.7	A	649.67	974.51
4	0.00	2.14	0.0	A	6.42	9.63
5	0.96	37.23	18.2	E	1555.36	2333.04

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	673.80	168.45	1041.02		1103.36	0.611	667.08	579.60	0.0	1.7	8.946	A
2	79.05	19.76	1565.32	376.43	691.15	0.114	78.49	142.77	0.0	0.1	6.458	A
3	533.02	133.25	435.04	376.43	1280.57	0.416	529.91	1208.77	0.0	0.8	5.255	A
4	5.27	1.32	679.41		2063.52	0.003	5.26	285.54	0.0	0.0	1.923	A
5	1276.08	319.02	354.03	376.43	1853.94	0.688	1266.60	330.65	0.0	2.4	6.640	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	804.59	201.15	1249.22		1003.67	0.802	795.15	695.21	1.7	4.0	18.212	C
2	94.39	23.60	1873.20	449.49	563.04	0.168	94.08	171.16	0.1	0.2	8.439	A
3	636.48	159.12	520.05	449.49	1285.10	0.495	635.32	1447.23	0.8	1.1	6.083	A
4	6.29	1.57	813.14		1968.88	0.003	6.29	342.23	0.0	0.0	2.017	A
5	1523.77	380.94	424.44	449.49	2012.34	0.757	1519.99	394.99	2.4	3.3	7.976	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	985.41	246.35	1497.08		885.00	1.113	866.16	841.62	4.0	33.9	93.665	F
2	115.61	28.90	2158.55	550.51	449.93	0.257	114.99	204.69	0.2	0.4	11.800	B
3	779.52	194.88	592.97	550.51	1285.38	0.606	777.15	1680.56	1.1	1.7	7.754	A
4	7.71	1.93	960.82		1864.35	0.004	7.70	409.30	0.0	0.0	2.132	A
5	1866.23	466.56	519.19	550.51	1940.77	0.962	1819.52	449.33	3.3	15.0	26.097	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	985.41	246.35	1523.65		872.28	1.130	869.28	850.57	33.9	62.9	208.258	F
2	115.61	28.90	2185.86	550.51	448.63	0.258	115.59	207.07	0.4	0.4	11.890	B
3	779.52	194.88	598.27	550.51	1323.44	0.589	779.77	1703.19	1.7	1.6	7.288	A
4	7.71	1.93	964.62		1861.66	0.004	7.71	413.42	0.0	0.0	2.135	A
5	1866.23	466.56	520.94	550.51	1940.77	0.962	1853.28	451.38	15.0	18.2	37.233	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	804.59	201.15	1298.22		980.21	0.821	963.36	710.92	62.9	23.2	164.777	F
2	94.39	23.60	2082.72	449.49	492.82	0.192	94.85	178.86	0.4	0.3	9.961	A
3	636.48	159.12	588.60	449.49	1315.28	0.484	638.70	1588.97	1.6	1.0	5.871	A
4	6.29	1.57	869.50		1928.98	0.003	6.30	357.80	0.0	0.0	2.060	A
5	1523.77	380.94	426.70	449.49	2012.34	0.757	1582.44	449.10	18.2	3.6	10.410	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	673.80	168.45	1054.33		1096.98	0.614	759.35	585.73	23.2	1.8	14.933	B
2	79.05	19.76	1667.53	376.43	664.03	0.119	79.51	146.16	0.3	0.1	6.779	A
3	533.02	133.25	471.06	376.43	1336.09	0.399	534.25	1275.97	1.0	0.7	4.945	A
4	5.27	1.32	712.26		2040.27	0.003	5.27	293.05	0.0	0.0	1.945	A
5	1276.08	319.02	356.94	376.43	2064.55	0.618	1283.13	360.60	3.6	1.8	5.111	A

2021 + TVR + MRT, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	13.96	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	Pelican	500.00
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
2	9.40	3.00	2.90	1.00	6.00	11.60	7.00
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2021 + TVR + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	671.00	100.000
2		ONE HOUR	✓	124.00	100.000
3		ONE HOUR	✓	1379.00	100.000
4		ONE HOUR	✓	209.00	100.000
5		ONE HOUR	✓	1125.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2	Global	500.00
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	7.000	345.000	20.000	299.000
	2	15.000	0.000	31.000	33.000	45.000
	3	742.000	31.000	0.000	30.000	576.000
	4	31.000	0.000	57.000	0.000	121.000
	5	353.000	54.000	640.000	43.000	35.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.01	0.51	0.03	0.45
	2	0.12	0.00	0.25	0.27	0.36
	3	0.54	0.02	0.00	0.02	0.42
	4	0.15	0.00	0.27	0.00	0.58
	5	0.31	0.05	0.57	0.04	0.03

Vehicle Mix

Heavy Vehicle proportion

From	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

From	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.64	9.66	2.0	A	615.72	923.58
2	0.20	7.29	0.3	A	113.78	170.68
3	0.90	22.01	8.8	C	1265.39	1898.09
4	0.19	4.13	0.3	A	191.78	287.67
5	0.75	9.21	3.1	A	1032.32	1548.48

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	505.16	126.29	643.81		1293.54	0.391	502.37	851.56	0.0	0.7	4.989	A
2	93.35	23.34	1077.42	376.43	898.07	0.104	92.85	68.76	0.0	0.1	4.914	A
3	1038.18	259.55	366.86	376.43	1445.89	0.718	1027.38	803.41	0.0	2.7	9.240	A
4	157.35	39.34	1300.02		1624.27	0.097	156.88	94.22	0.0	0.1	2.698	A
5	846.96	211.74	653.18	376.43	1619.05	0.523	842.19	803.71	0.0	1.2	5.068	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	603.22	150.80	771.47		1232.41	0.489	601.85	1023.54	0.7	1.0	6.265	A
2	111.47	27.87	1290.80	449.49	802.77	0.139	111.28	82.52	0.1	0.2	5.725	A
3	1239.69	309.92	439.55	449.49	1628.31	0.761	1237.01	962.53	2.7	3.4	10.038	B
4	187.89	46.97	1563.52		1437.76	0.131	187.70	113.03	0.1	0.2	3.167	A
5	1011.35	252.84	785.90	449.49	1635.12	0.619	1009.11	965.32	1.2	1.8	6.303	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	738.78	184.70	942.57		1150.49	0.642	735.27	1244.28	1.0	1.9	9.456	A
2	136.53	34.13	1577.27	550.51	678.80	0.201	136.13	100.57	0.2	0.3	7.293	A
3	1518.31	379.58	537.15	550.51	1690.00	0.898	1499.44	1176.25	3.4	8.1	19.079	C
4	230.11	57.53	1898.70		1200.53	0.192	229.73	137.90	0.2	0.3	4.076	A
5	1238.65	309.66	953.71	550.51	1657.51	0.747	1233.14	1174.72	1.8	3.1	9.209	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	738.78	184.70	947.66		1148.06	0.644	738.64	1255.16	1.9	2.0	9.663	A
2	136.53	34.13	1585.01	550.51	681.75	0.200	136.53	101.29	0.3	0.3	7.262	A
3	1518.31	379.58	539.52	550.51	1689.05	0.899	1515.54	1182.02	8.1	8.8	22.006	C
4	230.11	57.53	1916.35		1188.04	0.194	230.10	138.71	0.3	0.3	4.133	A
5	1238.65	309.66	962.94	550.51	1733.72	0.714	1239.88	1183.51	3.1	2.8	8.046	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	603.22	150.80	777.22		1229.66	0.491	606.74	1040.44	2.0	1.1	6.391	A
2	111.47	27.87	1300.43	449.49	807.87	0.138	111.86	83.53	0.3	0.2	5.694	A
3	1239.69	309.92	442.82	449.49	1753.49	0.707	1263.89	969.48	8.8	2.7	8.467	A
4	187.89	46.97	1592.50		1417.25	0.133	188.26	114.20	0.3	0.2	3.222	A
5	1011.35	252.84	801.27	449.49	1733.08	0.584	1016.39	979.49	2.8	1.6	5.562	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	505.16	126.29	648.89		1291.10	0.391	506.60	861.03	1.1	0.7	5.058	A
2	93.35	23.34	1086.07	376.43	905.07	0.103	93.55	69.43	0.2	0.1	4.880	A
3	1038.18	259.55	369.87	376.43	1594.89	0.651	1040.73	809.75	2.7	2.1	7.179	A
4	157.35	39.34	1315.51		1613.30	0.098	157.54	95.08	0.2	0.1	2.720	A
5	846.96	211.74	661.03	376.43	1717.70	0.493	848.89	812.02	1.6	1.1	4.567	A

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2017							
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Filename: Vastern Road Roundabout Existing Layout.j9

Path: J:\28791 RBC BLTB LA Scheme\03 East Reading MRT\Transport\Working Documents\Calculations\Vastern Road Rbt ARC

Report generation date: 16/05/2017 10:36:08

- »2021 + TVR P&R, AM
- »2021 + TVR P&R, PM
- »2021 + TVR P&R + MRT, AM
- »2021 + TVR P&R + MRT, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2021 + TVR P&R								
Arm 1	60.8	200.53	1.12	F	1.8	8.93	0.62	A
Arm 2	0.3	12.19	0.20	B	0.2	6.02	0.13	A
Arm 3	1.6	7.53	0.60	A	8.2	20.40	0.89	C
Arm 4	0.0	2.13	0.00	A	0.3	4.14	0.19	A
Arm 5	17.0	35.02	0.96	E	2.8	8.69	0.73	A
2021 + TVR P&R + MRT								
Arm 1	62.9	208.26	1.13	F	2.0	9.66	0.64	A
Arm 2	0.3	11.67	0.19	B	0.2	6.15	0.13	A
Arm 3	1.6	7.60	0.60	A	8.2	20.50	0.89	C
Arm 4	0.0	2.14	0.00	A	0.3	4.13	0.19	A
Arm 5	18.2	37.23	0.96	E	3.1	9.22	0.75	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

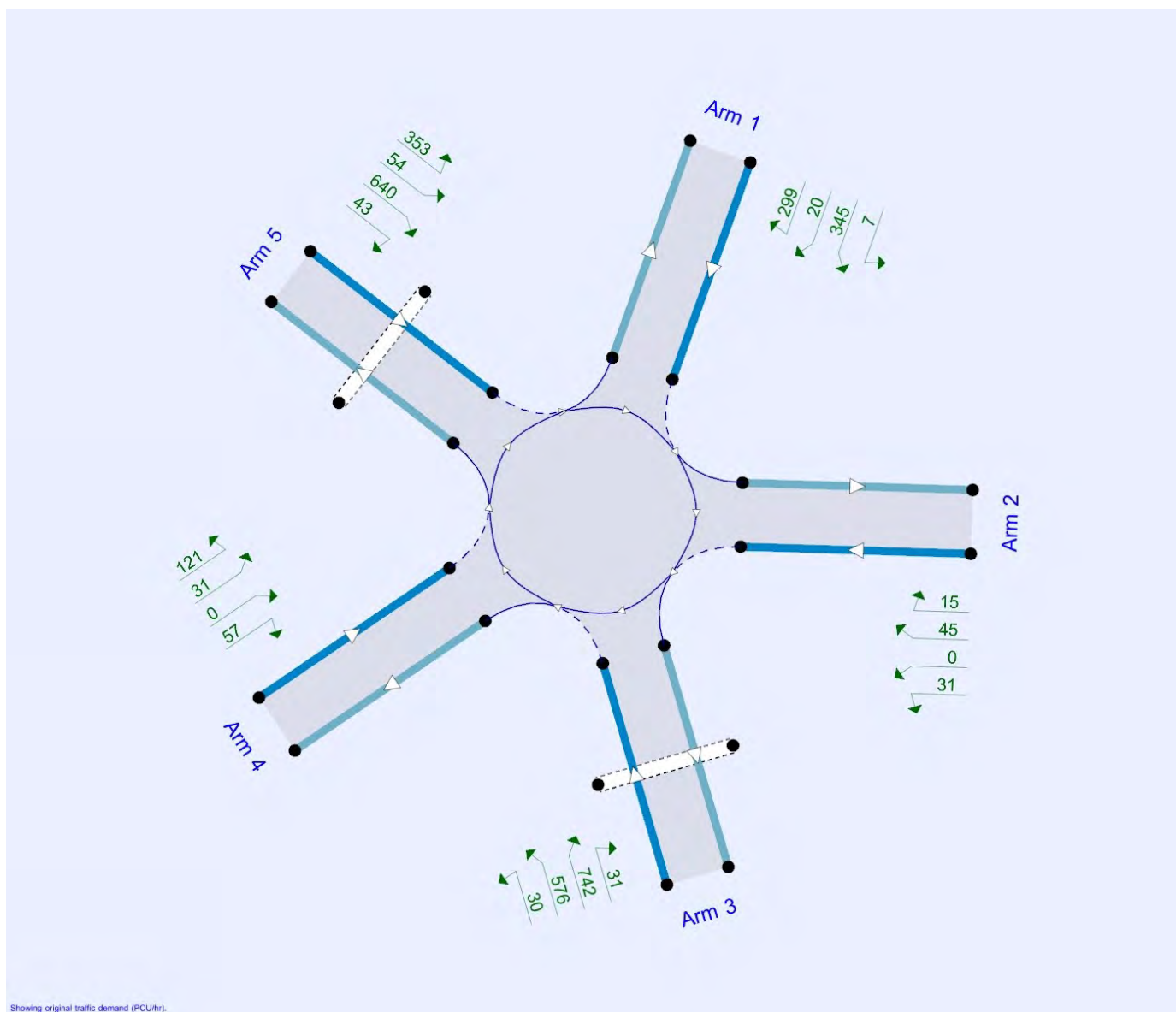
File summary

File Description

Title	Vastern Road
Location	Reading
Site number	-
Date	08/05/2017
Version	A
Status	-
Identifier	-
Client	-
Jobnumber	28791
Enumerator	PBA"jchurchill
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
2021 + TVR P&R	AM	ONE HOUR	07:45	09:15	15	✓
2021 + TVR P&R	PM	ONE HOUR	16:45	18:15	15	✓
2021 + TVR P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓
2021 + TVR P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

2021 + TVR P&R, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	72.99	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	George Street	
2	Napier Road	
3	Vastern Road (South)	
4	Bagnall Way	
5	Vastern Road (North-West)	

Capacity Options

Arm	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Assume flat start profile	Initial queue (PCU)
1	0.00	99999.00		0.00
2	0.00	99999.00		0.00
3	0.00	99999.00		0.00
4	0.00	99999.00		0.00
5	0.00	99999.00		0.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	6.00	9.33	4.4	3.0	59.5	20.0	
2	3.00	7.61	14.9	15.0	59.5	27.0	
3	6.70	6.70	0.0	30.7	59.5	19.5	
4	8.00	9.57	1.5	20.0	59.5	29.0	
5	6.00	10.30	30.0	25.5	59.5	21.0	

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	None	
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.479	1601.786
2	0.541	1601.156
3	0.650	2138.666
4	0.708	2544.406
5	0.767	2824.479

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 + TVR P&R	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	898.00	100.000
2		ONE HOUR	✓	72.00	100.000
3		ONE HOUR	✓	697.00	100.000
4		ONE HOUR	✓	7.00	100.000
5		ONE HOUR	✓	1686.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2		
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	19.000	549.000	50.000	280.000
	2	8.000	0.000	36.000	0.000	28.000
	3	387.000	63.000	0.000	140.000	107.000
	4	1.000	0.000	3.000	0.000	3.000
	5	376.000	76.000	1045.000	163.000	26.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.02	0.61	0.06	0.31
	2	0.11	0.00	0.50	0.00	0.39
	3	0.56	0.09	0.00	0.20	0.15
	4	0.14	0.00	0.43	0.00	0.43
	5	0.22	0.05	0.62	0.10	0.02

Vehicle Mix

Heavy Vehicle proportion

	To					
From		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

	To					
From		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.12	200.53	60.8	F	824.02	1236.03
2	0.20	12.19	0.3	B	66.07	99.10
3	0.60	7.53	1.6	A	639.58	959.37
4	0.00	2.13	0.0	A	6.42	9.63
5	0.96	35.02	17.0	E	1547.10	2320.65

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	676.06	169.02	1028.41		1109.39	0.609	669.37	577.42	0.0	1.7	8.872	A
2	54.21	13.55	1579.66		746.45	0.073	53.86	118.12	0.0	0.1	5.715	A
3	524.74	131.18	414.16	376.43	1287.61	0.408	521.74	1219.37	0.0	0.7	5.151	A
4	5.27	1.32	672.02		2068.76	0.003	5.26	263.88	0.0	0.0	1.918	A
5	1269.31	317.33	345.84	376.43	1855.05	0.684	1259.99	331.44	0.0	2.3	6.556	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	807.28	201.82	1234.00		1010.96	0.799	798.07	692.55	1.7	4.0	17.868	C
2	64.73	16.18	1890.50		578.27	0.112	64.52	141.58	0.1	0.1	7.704	A
3	626.59	156.65	495.03	449.49	1290.56	0.486	625.48	1459.99	0.7	1.0	5.944	A
4	6.29	1.57	804.27		1975.15	0.003	6.29	316.25	0.0	0.0	2.011	A
5	1515.68	378.92	414.59	449.49	2010.64	0.754	1511.96	395.97	2.3	3.3	7.876	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	988.72	247.18	1480.79		892.80	1.107	872.97	838.93	4.0	32.9	90.936	F
2	79.27	19.82	2184.42		419.23	0.189	78.81	169.34	0.1	0.3	11.618	B
3	767.41	191.85	563.39	550.51	1288.74	0.595	765.16	1699.84	1.0	1.6	7.529	A
4	7.71	1.93	951.03		1871.28	0.004	7.70	377.53	0.0	0.0	2.124	A
5	1856.32	464.08	507.17	550.51	1940.77	0.956	1812.54	451.56	3.3	14.2	25.096	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	988.72	247.18	1506.32		880.57	1.123	877.28	847.60	32.9	60.8	200.525	F
2	79.27	19.82	2212.48		404.05	0.196	79.22	171.12	0.3	0.3	12.191	B
3	767.41	191.85	568.83	550.51	1324.92	0.579	767.62	1722.87	1.6	1.5	7.112	A
4	7.71	1.93	955.04		1868.44	0.004	7.71	381.41	0.0	0.0	2.127	A
5	1856.32	464.08	508.80	550.51	1940.77	0.956	1845.12	453.95	14.2	17.0	35.023	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	807.28	201.82	1279.21		989.31	0.816	971.72	707.28	60.8	19.7	153.605	F
2	64.73	16.18	2102.79		463.40	0.140	65.06	148.15	0.3	0.2	9.951	A
3	626.59	156.65	565.59	449.49	1317.57	0.476	628.69	1602.26	1.5	1.0	5.765	A
4	6.29	1.57	862.14		1934.19	0.003	6.30	332.15	0.0	0.0	2.053	A
5	1515.68	378.92	416.72	449.49	2012.34	0.753	1569.76	451.71	17.0	3.5	9.989	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	676.06	169.02	1041.31		1103.22	0.613	747.53	583.42	19.7	1.8	13.467	B
2	54.21	13.55	1667.96		698.67	0.078	54.56	120.88	0.2	0.1	6.152	A
3	524.74	131.18	445.03	376.43	1343.04	0.391	525.93	1277.48	1.0	0.7	4.853	A
4	5.27	1.32	700.33		2048.72	0.003	5.27	270.63	0.0	0.0	1.939	A
5	1269.31	317.33	348.63	376.43	2061.62	0.616	1276.09	356.98	3.5	1.8	5.085	A

2021 + TVR P&R, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	13.11	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	None	
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 + TVR P&R	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	667.00	100.000
2		ONE HOUR	✓	92.00	100.000
3		ONE HOUR	✓	1378.00	100.000
4		ONE HOUR	✓	210.00	100.000
5		ONE HOUR	✓	1068.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2		
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

	To					
From		1	2	3	4	5
	1	0.000	7.000	342.000	20.000	298.000
	2	16.000	0.000	31.000	0.000	45.000
	3	742.000	25.000	0.000	30.000	581.000
	4	32.000	0.000	57.000	0.000	121.000
	5	346.000	26.000	618.000	43.000	35.000

Proportions

	To					
From		1	2	3	4	5
	1	0.00	0.01	0.51	0.03	0.45
	2	0.17	0.00	0.34	0.00	0.49
	3	0.54	0.02	0.00	0.02	0.42
	4	0.15	0.00	0.27	0.00	0.58
	5	0.32	0.02	0.58	0.04	0.03

Vehicle Mix

Heavy Vehicle proportion

From	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

From	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.62	8.93	1.8	A	612.05	918.08
2	0.13	6.02	0.2	A	84.42	126.63
3	0.89	20.40	8.2	C	1264.48	1896.72
4	0.19	4.14	0.3	A	192.70	289.05
5	0.73	8.69	2.8	A	980.02	1470.02

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	502.15	125.54	602.05		1313.53	0.382	499.45	848.00	0.0	0.7	4.849	A
2	69.26	17.32	1058.16		1028.62	0.067	68.95	43.34	0.0	0.1	4.125	A
3	1037.43	259.36	342.24	376.43	1452.95	0.714	1026.83	784.87	0.0	2.7	9.083	A
4	158.10	39.52	1299.54		1624.61	0.097	157.63	69.53	0.0	0.1	2.699	A
5	804.05	201.01	650.33	376.43	1612.69	0.499	799.72	806.84	0.0	1.1	4.846	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	599.62	149.90	721.32		1256.42	0.477	598.35	1019.10	0.7	1.0	6.008	A
2	82.71	20.68	1267.64		915.27	0.090	82.59	52.03	0.1	0.1	4.755	A
3	1238.79	309.70	410.00	449.49	1633.29	0.758	1236.11	940.23	2.7	3.3	9.890	A
4	188.79	47.20	1562.69		1438.35	0.131	188.60	83.43	0.1	0.2	3.168	A
5	960.11	240.03	782.32	449.49	1616.45	0.594	958.10	968.97	1.1	1.6	5.997	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	734.38	183.60	881.51		1179.73	0.623	731.27	1239.90	1.0	1.8	8.769	A
2	101.29	25.32	1549.38		762.83	0.133	101.06	63.40	0.1	0.2	5.983	A
3	1517.21	379.30	501.17	550.51	1704.41	0.890	1500.16	1149.27	3.3	7.6	18.000	C
4	231.21	57.80	1899.60		1199.89	0.193	230.83	101.73	0.2	0.3	4.083	A
5	1175.89	293.97	950.40	550.51	1621.87	0.725	1171.01	1180.03	1.6	2.8	8.688	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	734.38	183.60	885.83		1177.66	0.624	734.27	1249.83	1.8	1.8	8.926	A
2	101.29	25.32	1556.26		759.11	0.133	101.29	63.84	0.2	0.2	6.019	A
3	1517.21	379.30	503.18	550.51	1703.61	0.891	1514.91	1154.36	7.6	8.2	20.397	C
4	231.21	57.80	1915.71		1188.48	0.195	231.20	102.38	0.3	0.3	4.136	A
5	1175.89	293.97	958.81	550.51	1691.74	0.695	1176.85	1188.11	2.8	2.6	7.711	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	599.62	149.90	726.34		1254.02	0.478	602.73	1034.65	1.8	1.0	6.108	A
2	82.71	20.68	1276.38		910.54	0.091	82.94	52.68	0.2	0.1	4.785	A
3	1238.79	309.70	412.80	449.49	1765.96	0.701	1260.79	946.52	8.2	2.7	8.163	A
4	188.79	47.20	1589.23		1419.56	0.133	189.17	84.36	0.3	0.2	3.221	A
5	960.11	240.03	796.36	449.49	1707.03	0.562	964.64	982.04	2.6	1.4	5.367	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	502.15	125.54	606.58		1311.36	0.383	503.48	857.12	1.0	0.7	4.909	A
2	69.26	17.32	1066.30		1024.21	0.068	69.38	43.76	0.1	0.1	4.149	A
3	1037.43	259.36	344.90	376.43	1598.91	0.649	1039.76	790.79	2.7	2.1	7.112	A
4	158.10	39.52	1314.48		1614.03	0.098	158.30	70.18	0.2	0.1	2.720	A
5	804.05	201.01	657.89	376.43	1703.78	0.472	805.81	814.89	1.4	1.0	4.420	A

2021 + TVR P&R + MRT, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	75.73	F

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	None	
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 + TVR P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	895.00	100.000
2		ONE HOUR	✓	72.00	100.000
3		ONE HOUR	✓	708.00	100.000
4		ONE HOUR	✓	7.00	100.000
5		ONE HOUR	✓	1695.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2		
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	19.000	551.000	46.000	279.000
	2	8.000	0.000	36.000	0.000	28.000
	3	392.000	69.000	0.000	140.000	107.000
	4	1.000	0.000	3.000	0.000	3.000
	5	374.000	103.000	1029.000	163.000	26.000

Proportions

		To				
From		1	2	3	4	5
	1	0.00	0.02	0.62	0.05	0.31
	2	0.11	0.00	0.50	0.00	0.39
	3	0.55	0.10	0.00	0.20	0.15
	4	0.14	0.00	0.43	0.00	0.43
	5	0.22	0.06	0.61	0.10	0.02

Vehicle Mix

Heavy Vehicle proportion

From	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

From	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.13	208.26	62.9	F	821.27	1231.90
2	0.19	11.67	0.3	B	66.07	99.10
3	0.60	7.60	1.6	A	649.67	974.51
4	0.00	2.14	0.0	A	6.42	9.63
5	0.96	37.23	18.2	E	1555.36	2333.04

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	673.80	168.45	1041.02		1103.35	0.611	667.08	579.63	0.0	1.7	8.946	A
2	54.21	13.55	1565.32		754.21	0.072	53.87	142.78	0.0	0.1	5.652	A
3	533.02	133.25	410.40	376.43	1290.44	0.413	529.95	1208.79	0.0	0.8	5.186	A
4	5.27	1.32	679.47		2063.48	0.003	5.26	260.88	0.0	0.0	1.923	A
5	1276.08	319.02	354.06	376.43	1853.93	0.688	1266.60	330.67	0.0	2.4	6.640	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	804.59	201.15	1249.22		1003.67	0.802	795.15	695.23	1.7	4.0	18.212	C
2	64.73	16.18	1873.20		587.62	0.110	64.53	171.16	0.1	0.1	7.570	A
3	636.48	159.12	490.49	449.49	1295.45	0.491	635.35	1447.24	0.8	1.0	5.989	A
4	6.29	1.57	813.16		1968.86	0.003	6.29	312.67	0.0	0.0	2.017	A
5	1523.77	380.94	424.46	449.49	2012.34	0.757	1519.99	395.00	2.4	3.3	7.976	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	985.41	246.35	1497.09		884.99	1.113	866.16	841.66	4.0	33.9	93.666	F
2	79.27	19.82	2158.55		433.23	0.183	78.84	204.70	0.1	0.2	11.160	B
3	779.52	194.88	556.83	550.51	1296.11	0.601	777.21	1680.56	1.0	1.6	7.595	A
4	7.71	1.93	960.87		1864.31	0.004	7.70	373.18	0.0	0.0	2.132	A
5	1866.23	466.56	519.23	550.51	1940.77	0.962	1819.52	449.34	3.3	15.0	26.097	D

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	985.41	246.35	1523.65		872.28	1.130	869.28	850.55	33.9	62.9	208.260	F
2	79.27	19.82	2185.87		418.45	0.189	79.23	207.06	0.2	0.3	11.672	B
3	779.52	194.88	561.92	550.51	1333.29	0.585	779.75	1703.17	1.6	1.6	7.157	A
4	7.71	1.93	964.59		1861.68	0.004	7.71	377.09	0.0	0.0	2.135	A
5	1866.23	466.56	520.93	550.51	1940.77	0.962	1853.28	451.37	15.0	18.2	37.233	E

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	804.59	201.15	1298.22		980.21	0.821	963.36	710.89	62.9	23.2	164.776	F
2	64.73	16.18	2082.73		474.26	0.136	65.04	178.85	0.3	0.2	9.683	A
3	636.48	159.12	558.79	449.49	1324.49	0.481	638.64	1588.97	1.6	1.0	5.793	A
4	6.29	1.57	869.46		1929.01	0.003	6.30	327.97	0.0	0.0	2.060	A
5	1523.77	380.94	426.66	449.49	2012.34	0.757	1582.44	449.09	18.2	3.6	10.410	B

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	673.80	168.45	1054.33		1096.98	0.614	759.35	585.72	23.2	1.8	14.933	B
2	54.21	13.55	1667.53		698.91	0.078	54.54	146.16	0.2	0.1	6.150	A
3	533.02	133.25	446.08	376.43	1345.23	0.396	534.23	1275.98	1.0	0.7	4.889	A
4	5.27	1.32	712.25		2040.28	0.003	5.27	268.06	0.0	0.0	1.945	A
5	1276.08	319.02	356.92	376.43	2064.55	0.618	1283.13	360.60	3.6	1.8	5.111	A

2021 + TVR P&R + MRT, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	13.40	B

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Capacity Options

[same as above]

Roundabout Geometry

[same as above]

Pedestrian Crossings

Arm	Crossing type	Average pedestrian flow (Ped/hr)
1	None	
2	None	
3	Pelican	500.00
4	None	
5	Pelican	500.00

Pelican/Puffin Crossings

Arm	Space between crossing and junction entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
3	3.90	3.00	2.90	1.00	6.00	6.00	7.00
5	6.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2021 + TVR P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	671.00	100.000
2		ONE HOUR	✓	91.00	100.000
3		ONE HOUR	✓	1379.00	100.000
4		ONE HOUR	✓	209.00	100.000
5		ONE HOUR	✓	1125.00	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1		
2		
3	Global	500.00
4		
5	Global	500.00

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1	2	3	4	5
	1	0.000	7.000	345.000	20.000	299.000
	2	15.000	0.000	31.000	0.000	45.000
	3	742.000	31.000	0.000	30.000	576.000
	4	31.000	0.000	57.000	0.000	121.000
	5	353.000	54.000	640.000	43.000	35.000

Proportions

		To				
From		1	2	3	4	5
	1	0.00	0.01	0.51	0.03	0.45
	2	0.16	0.00	0.34	0.00	0.49
	3	0.54	0.02	0.00	0.02	0.42
	4	0.15	0.00	0.27	0.00	0.58
	5	0.31	0.05	0.57	0.04	0.03

Vehicle Mix

Heavy Vehicle proportion

From	To					
		1	2	3	4	5
	1	10	10	10	10	10
	2	10	10	10	10	10
	3	10	10	10	10	10
	4	10	10	10	10	10
	5	10	10	10	10	10

Average PCU Per Veh

From	To					
		1	2	3	4	5
	1	1.100	1.100	1.100	1.100	1.100
	2	1.100	1.100	1.100	1.100	1.100
	3	1.100	1.100	1.100	1.100	1.100
	4	1.100	1.100	1.100	1.100	1.100
	5	1.100	1.100	1.100	1.100	1.100

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.64	9.66	2.0	A	615.72	923.58
2	0.13	6.15	0.2	A	83.50	125.25
3	0.89	20.50	8.2	C	1265.39	1898.09
4	0.19	4.13	0.3	A	191.78	287.67
5	0.75	9.22	3.1	A	1032.32	1548.48

Main Results for each time segment

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	505.16	126.29	643.81		1293.53	0.391	502.37	851.67	0.0	0.7	4.989	A
2	68.51	17.13	1077.42		1018.20	0.067	68.19	68.77	0.0	0.1	4.167	A
3	1038.18	259.55	342.19	376.43	1453.28	0.714	1027.56	803.42	0.0	2.7	9.090	A
4	157.35	39.34	1300.23		1624.12	0.097	156.88	69.52	0.0	0.1	2.699	A
5	846.96	211.74	653.30	376.43	1619.00	0.523	842.19	803.81	0.0	1.2	5.068	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	603.22	150.80	771.47		1232.41	0.489	601.85	1023.54	0.7	1.0	6.265	A
2	81.81	20.45	1290.80		902.75	0.091	81.69	82.52	0.1	0.1	4.823	A
3	1239.69	309.92	409.95	449.49	1633.95	0.759	1237.01	962.54	2.7	3.3	9.896	A
4	187.89	46.97	1563.54		1437.75	0.131	187.70	83.42	0.1	0.2	3.167	A
5	1011.35	252.84	785.90	449.49	1635.13	0.619	1009.11	965.33	1.2	1.8	6.303	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	738.78	184.70	942.60		1150.48	0.642	735.27	1245.20	1.0	1.9	9.456	A
2	100.19	25.05	1577.27		747.75	0.134	99.95	100.61	0.1	0.2	6.112	A
3	1518.31	379.58	500.96	550.51	1704.50	0.891	1501.14	1176.26	3.3	7.6	18.065	C
4	230.11	57.53	1900.39		1199.33	0.192	229.73	101.71	0.2	0.3	4.081	A
5	1238.65	309.66	954.67	550.51	1657.22	0.747	1233.13	1175.45	1.8	3.1	9.216	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	738.78	184.70	947.67		1148.05	0.644	738.64	1255.40	1.9	2.0	9.664	A
2	100.19	25.05	1585.02		743.55	0.135	100.19	101.30	0.2	0.2	6.154	A
3	1518.31	379.58	503.18	550.51	1703.61	0.891	1515.98	1182.02	7.6	8.2	20.502	C
4	230.11	57.53	1916.77		1187.74	0.194	230.10	102.39	0.3	0.3	4.134	A
5	1238.65	309.66	963.18	550.51	1733.75	0.714	1239.89	1183.69	3.1	2.8	8.046	A

Main results: (17:45-18:00)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	603.22	150.80	777.18		1229.68	0.491	606.74	1039.33	2.0	1.1	6.391	A
2	81.81	20.45	1300.44		897.53	0.091	82.05	83.48	0.2	0.1	4.856	A
3	1239.69	309.92	413.01	449.49	1765.87	0.702	1261.84	969.47	8.2	2.7	8.185	A
4	187.89	46.97	1590.47		1418.69	0.132	188.27	84.38	0.3	0.2	3.221	A
5	1011.35	252.84	800.12	449.49	1733.55	0.583	1016.39	978.62	2.8	1.6	5.561	A

Main results: (18:00-18:15)

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
1	505.16	126.29	648.88		1291.11	0.391	506.60	860.92	1.1	0.7	5.058	A
2	68.51	17.13	1086.06		1013.52	0.068	68.63	69.42	0.1	0.1	4.191	A
3	1038.18	259.55	344.95	376.43	1599.54	0.649	1040.53	809.74	2.7	2.1	7.117	A
4	157.35	39.34	1315.30		1613.45	0.098	157.54	70.18	0.2	0.1	2.721	A
5	846.96	211.74	660.92	376.43	1717.68	0.493	848.89	811.93	1.6	1.1	4.567	A

Appendix F Junctions 9 Outputs Napier Road / East MRT Scheme

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.0.1.4646 [] © Copyright TRL Limited, 2017							
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk							
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Filename: Napier MRT.j9

Path: J:\28791 RBC BLTB LA Scheme\03 East Reading MRT\Transport\Working Documents\Junction Analysis

Report generation date: 16/06/2017 15:49:45

»2021 + P&R + MRT, AM

»2021 + P&R + MRT, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2021 + P&R + MRT								
Stream B-AC	0.0	10.24	0.02	B	0.0	10.32	0.02	B
Stream C-AB	0.0	9.68	0.02	A	0.0	9.75	0.02	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	06/06/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PBA\ldharvey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 + P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 + P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2021 + P&R + MRT, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Tesco		Major
B	MRT Scheme		Minor
C	Napier Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.80		✓	5.00	45.0	✓	4.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.30	85	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	599	0.101	0.254	0.160	0.363
1	B-C	741	0.105	0.265	-	-
1	C-B	783	0.280	0.280	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 + P&R + MRT	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	73	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	173	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	0	73
	B	0	0	15
	C	158	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	10	10	10
	B	10	10	100
	C	10	100	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	10.24	0.0	B	14	21
C-AB	0.02	9.68	0.0	A	14	21
C-A					145	217
A-B					0	0
A-C					67	100

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	726	0.016	11	0.0	0.0	10.069	B
C-AB	11	3	768	0.015	11	0.0	0.0	9.518	A
C-A	119	30			119				
A-B	0	0			0				
A-C	55	14			55				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	723	0.019	13	0.0	0.0	10.142	B
C-AB	13	3	765	0.018	13	0.0	0.0	9.585	A
C-A	142	36			142				
A-B	0	0			0				
A-C	66	16			66				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	719	0.023	16	0.0	0.0	10.242	B
C-AB	17	4	760	0.022	16	0.0	0.0	9.676	A
C-A	174	43			174				
A-B	0	0			0				
A-C	80	20			80				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	719	0.023	17	0.0	0.0	10.242	B
C-AB	17	4	760	0.022	17	0.0	0.0	9.676	A
C-A	174	43			174				
A-B	0	0			0				
A-C	80	20			80				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	723	0.019	14	0.0	0.0	10.143	B
C-AB	13	3	765	0.018	14	0.0	0.0	9.586	A
C-A	142	36			142				
A-B	0	0			0				
A-C	66	16			66				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	726	0.016	11	0.0	0.0	10.073	B
C-AB	11	3	768	0.015	11	0.0	0.0	9.520	A
C-A	119	30			119				
A-B	0	0			0				
A-C	55	14			55				

2021 + P&R + MRT, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 + P&R + MRT	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	92	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	74	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	0	92
	B	0	0	15
	C	59	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	10	10	10
	B	10	10	100
	C	10	100	10

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	10.32	0.0	B	14	21
C-AB	0.02	9.75	0.0	A	14	21
C-A					54	81
A-B					0	0
A-C					84	127

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	722	0.016	11	0.0	0.0	10.122	B
C-AB	11	3	764	0.015	11	0.0	0.0	9.569	A
C-A	44	11			44				
A-B	0	0			0				
A-C	69	17			69				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	719	0.019	13	0.0	0.0	10.207	B
C-AB	13	3	760	0.018	13	0.0	0.0	9.647	A
C-A	53	13			53				
A-B	0	0			0				
A-C	83	21			83				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	714	0.023	16	0.0	0.0	10.323	B
C-AB	17	4	755	0.022	16	0.0	0.0	9.754	A
C-A	65	16			65				
A-B	0	0			0				
A-C	101	25			101				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	17	4	714	0.023	17	0.0	0.0	10.323	B
C-AB	17	4	755	0.022	17	0.0	0.0	9.754	A
C-A	65	16			65				
A-B	0	0			0				
A-C	101	25			101				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	13	3	719	0.019	14	0.0	0.0	10.208	B
C-AB	13	3	760	0.018	14	0.0	0.0	9.648	A
C-A	53	13			53				
A-B	0	0			0				
A-C	83	21			83				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	LOS
B-AC	11	3	722	0.016	11	0.0	0.0	10.127	B
C-AB	11	3	764	0.015	11	0.0	0.0	9.571	A
C-A	44	11			44				
A-B	0	0			0				
A-C	69	17			69				